

HEAT - Heatstroke

HEAT-C COMPLICATIONS

OUTCOME: The patient and/or family will understand the consequences of heat stroke and the complications associated with heatstroke.

STANDARDS:

1. Explain that the body tissues and cells breakdown (denaturization of enzymes, destabilization of cells and breakdown of metabolic pathways) when the body's temperature increases above 105.8°F (41°C).
2. Discuss the complications of multisystem failure and the risks of morbidity and mortality that can occur as a result of heatstroke.
3. Discuss the possibility of circulatory collapse, that may precede permanent brain damage or death.

HEAT-CUL CULTURAL/SPIRITUAL ASPECTS OF HEALTH

OUTCOME: The patient/family will understand the impact and influences cultural and spiritual traditions, practices, and beliefs have on health and wellness.

STANDARDS:

1. Explain that the outcome of disease processes may be influenced by choices related to health and lifestyles, e.g., diet, exercise, sleep, stress management, hygiene, full participation in the medical plan. (Stoic Fatalism)
2. Discuss the potential role of cultural/spiritual traditions, practices and beliefs in achieving and maintaining health and wellness.
3. Explain that traditional medicines/treatments should be reviewed with the healthcare provider to determine if there are interactions with prescribed treatment.
4. Explain that the medical treatment plan must be followed as prescribed to be effective and that some medications/treatments take time to demonstrate effectiveness.
5. Discuss that traditions, such as sweat lodges, may affect some conditions in detrimental ways. Healing customs or using a traditional healer may have a positive effect on the patient's condition.
6. Refer to clergy services, traditional healers, or other culturally appropriate resources.

HEAT-DP DISEASE PROCESS

OUTCOME: The patient and/or family will understand how heat stroke occurs and the signs and symptoms of heatstroke.

STANDARDS:

1. Discuss the two different categories of heatstroke: exertional and non-exertional.
2. Discuss signs and symptoms of heatstroke with the patient:
 - a. Headache
 - b. Vertigo
 - c. Fatigue
 - d. Decreased sweating
 - e. Skin warm to touch
 - f. Flushing
 - g. Increased heart rate
 - h. Increased respiratory rate
3. Discuss the pathophysiology of heat stroke: inadequacy or failure of the heat loss mechanism.
4. Discuss warning signs of heat stroke: headache, weakness, and sudden loss of consciousness.
5. Discuss with the patient that heatstroke is an emergency.
6. Explain that some disease states or conditions may predispose to heat stroke, e.g., diabetes, anhidrosis, or previous episodes of heat stroke.
7. Explain that environmental conditions such as high humidity, extremely high temperatures can predispose to heat stroke.
8. Discuss that tight clothing or spandex or rubber clothing can predispose to heat stroke.

HEAT-EX EXERCISE

OUTCOME: The patient and/or family will understand how heatstroke can be influenced by exercise.

STANDARDS:

1. Discuss with patient/family how exercising in a warm environment, excessive exercising and prolonged exercise and exertion can lead to heatstroke.
2. Discuss the importance of frequent hydration and rest when exercising in a warm environment.

HEAT-FU FOLLOW-UP

OUTCOME: The patient and/or family will understand the seriousness of heatstroke and the importance of follow up care.

STANDARDS:

1. Discuss the importance of follow up appointments after a heat stroke to determine if there is any permanent or ongoing damage.
2. Discuss the importance of keeping follow up appointments.
3. Discuss the procedures for obtaining follow up appointments.

HEAT-L LITERATURE

OUTCOME: The patient and/or family will receive literature about heatstroke, and important preventive measures.

STANDARDS:

1. Provide patient/family with literature on heatstroke and prevention of heatstroke.
2. Discuss the content of the literature.

HEAT-M MEDICATIONS

OUTCOME: The patient/family will understand the use of medications in the emergency room to manage heatstroke.

STANDARDS:

1. Discuss with the patient that pharmacological therapy may not be required.
2. Discuss with the patient that signs/symptoms such as dysrhythmia and shivering may occur as a complication of heatstroke and may require medication therapy.
3. Discuss with the patient that once they leave the hospital they may require medications that will treat the complications that have occurred from the heatstroke.
4. Discuss with the patient the importance of following the instructions in regards to their medications.
5. Discuss the common and important side effects and drug interactions of the medications prescribed.

HEAT-MNT MEDICAL NUTRITION THERAPY

OUTCOME: The patient and family will have an understanding of the specific nutritional intervention(s) needed for treatment or management of this condition, illness, or injury.

STANDARDS:

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
 - a. Assessment of the nutrition related condition.
 - b. Identification of the patient's nutritional problem.
 - c. Identification of a specific nutrition intervention therapy plan.
 - d. Evaluation of the patient's nutritional care outcomes.
 - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.
3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.
5. Refer to other providers or community resources as needed.

HEAT-N NUTRITION

OUTCOME: The patient/family will understand the importance of adequate hydration and that water is the beverage of choice.

STANDARDS:

1. Explain that water is the beverage that best hydrates the body.
2. Discuss that caffeinated beverages and alcohol are especially dangerous and may predispose to dehydration and heat stroke.

HEAT-P PREVENTION

OUTCOME: The patient/family will understand ways to prevent heatstroke.

STANDARDS:

1. Discuss that it is easier to prevent heat stroke than to treat it.
2. Discuss with the patient/family that the majority of heat stroke cases are preventable by avoiding extremely hot/humid environments, inadequately ventilated spaces, inadequate fluid intake and heavy clothing in warm conditions.
3. Discuss with the patient/family ways to prevent heatstroke when heat exposure cannot be avoided; reducing or eliminating strenuous activities, staying adequately hydrated, frequently taking showers, wearing light weight clothing, and avoiding direct sunlight.
4. Discuss that up to a liter an hour may be required to prevent dehydration and predispose to heat stroke.

5. Discuss with the patient the most likely time of year to develop heatstroke: summer.
6. Discuss with patient the risk factors such as increased age, debility, low fluid intake, excessive exercise, alcohol and drug use, chronic disease, living conditions with no air-conditioning, travel to warmer climates, and prolonged outdoor activities.

HEAT-TE TESTS

OUTCOME: The patient/family will understand the test(s) to be performed, including indications and impact on further care.

STANDARDS:

1. Explain the test ordered.
2. Explain the necessity, benefits and risks of the test to be performed, as applicable, including possible complications that may result from not having the test performed.
3. Explain how the test relates to the course of treatment.
4. Explain any necessary preparation for the test.
5. Explain the meaning of the test results, as appropriate.

HEAT-TX TREATMENT

OUTCOME: The patient and/or family will understand the management and treatment of heatstrokes.

STANDARDS:

1. Discuss the importance of seeking emergency care if heatstroke is suspected.
2. Discuss the importance of slowly decreasing the temperature of the person.
3. Discuss the management of heatstroke in the emergency department; protection of airway, intravenous administration of fluids, monitoring of temperature, decreasing of temperature, and monitoring of cardiorespiratory status.
4. Discuss the goal of treatment with the patient; prevention of further heat loss, decrease in the core body temperature, and management and prevention of complications.
5. Discuss with the patient/family the importance of seeking emergency help as soon as possible in the incidence of a heatstroke.
6. Discuss the probability that the person experiencing a heatstroke may be admitted to an intensive care unit for extensive monitoring.